Characteristic of Binderless Comply Using Veneer Layers From Several Wood Species

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Abstract

Technology for producing binderless particleboard or comply was very affected by reactivity of chemical components of wood to form bonds formation between particles or veneer layers. Therefore, although they were processed using similar technologies, differences of wood species potential to produce products which have different qualities. This study aimed to evaluate the comply characteristics using veneer from several wood species. Three layers comply was produced with the target density of 0.75 g cm^{-3}. Veneers and particles were oxidized using 15% hydrogen peroxide based on veneer and particle weight and 7.5 % ferrous sulfate based on hydrogen peroxide weight. Particle was produced using sengon wood, while veneer layers were produced using several wood species such as sengon, jabon, mahogany, walnut, africa, and pine. The results showed that utilizataion of various wood species as veneer layers have significant effect on binderless comply characteristics. However all of comply types have good characteristics and fulfill almost of parmeters in JIS A 5908 2003. These indicated that utilization of various wood species is possible to be veneer layers in comply production without any negative effect on binderless comply characteristics.

Keywords: *binderless, comply, hydrogen peroxide, oxidation*